

UK Patent Application GB 2 140 521 A

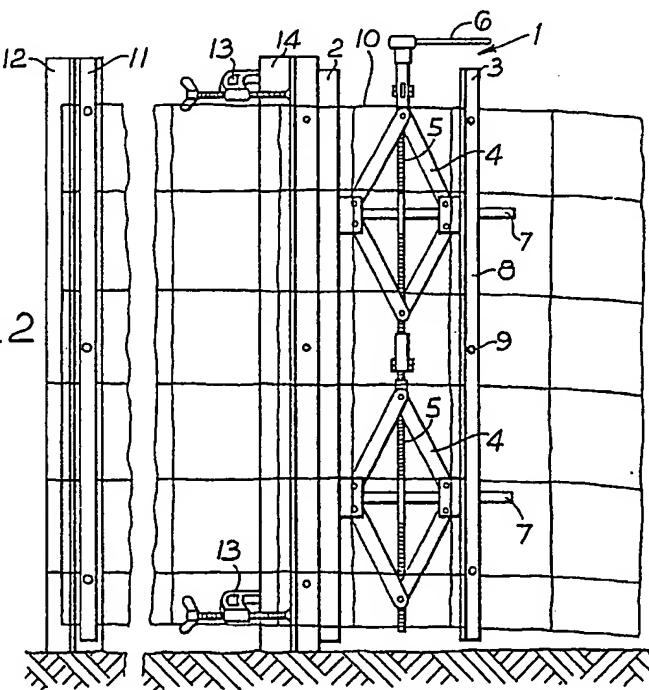
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(71) Applicant Tinsley Wire (Sheffield) Limited (United Kingdom), PO Box 119, Shepcote Lane, Sheffield S9 1TY	(58) Field of search F2G
(72) Inventor Ian Eric Melton	
(74) Agent and/or Address for Service Hulse & Co., Cavendish Buildings, West Street, Sheffield S1 1ZZ	

(54) Tensioning means for fencing

(57) Tensioning means (1) for wire mesh fencing (10) comprises a first member (2) adapted to be secured to a fencing post (14) by clamps (13), a second member (3) to which the fencing is removably secured by a clamping bar (8) and screws (9), and a plurality of jack-means (4) between the first and second members (2, 3). These may be screw-jacks or hydraulic or pneumatic jacks for effecting movement of the second member (3) relative to the first member (2) to distribute tension evenly over the height of the fencing.

Fig. 2



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SPECIFICATION**Tensioning means for fencing**

5 This invention relates to tensioning means for fencing and is particularly concerned with means for tensioning wire mesh fencing during erection.

Wire mesh fencing is in two basic forms, so called "chain-link fencing" where the strands of wires are 10 interlinked but not secured to each other, and so-called "welded wire mesh", where the strands of wire are positively secured at their cross-over points such as by welding. Chain link fencing is not particularly difficult to erect, it being usual to run line 15 wires between support posts and to pull the chain link fencing taut between the posts by hand, the line wires assisting considerably in maintaining the fencing in a vertical condition. Erection of welded wire mesh fencing is however more difficult because 20 of its inherent inflexibility, and cannot effectively be tensioned between the support posts by hand. Thus, it is known to lay the fencing against a support post, and to use the post as a fulcrum and lever the wire to tension it prior to securing the fencing to that post.

25 Such tensioning is laborious and must be separately effected at several points over the full height of the fencing, and inevitably results in poor tensioning that is uneven over the height of the fencing. It is also known to use conventional pulling devices 30 which are secured to a post and connected to the fencing, but again the device must be used several times at each post, e.g., to tension the upper, the central and the lower areas of the fencing, a time consuming exercise, and almost inevitably the fencing 35 is tensioned to different degrees at different points over its full height.

The object of the present invention is to provide tensioning means for fencing of both types referred to above, but which is particularly suited to welded 40 wire mesh fencing, and which avoids the disadvantages referred to above.

According to the present invention, tensioning means for wire mesh fencing comprises a first member adapted to be held stationary in relation to 45 the fencing, an elongate second member lying in the same plane as the first member and to which the fencing is to be removably secured, and a plurality of jack-means extending between the first and second members for effecting movement of the second 50 member relative to the first member.

Thus, with the first member effectively tethered at a point in line with the line to be taken by the fencing, and with the fencing secured to the second member, operation of the jack-means to the required degree 55 induces an evenly distributed tension in the fencing over its full height. On appreciably inclined ground, it may be necessary to operate the jack-means to different extents such that with the second member lying perpendicular to the fencing top, and with the 60 first member vertically disposed, the second member can be put at a correct angle to the first member and whereby the fencing can be tensioned evenly.

However, fencing is predominantly erected on reasonably flat ground, and accordingly the invention in a preferred form may comprise a first

member adapted to be held stationary in relation to the fencing, a second member extending parallel to the first member and adapted for movement relative to the first member and to which the fencing is to be

70 removably secured, and a plurality of jack-means extending between the first and second members are operable simultaneously and to the same extent whereby the second member is maintained parallel to the first member during the relative movement.

75 Preferably, and to assist with the maintenance of the second member parallel to the first member, a number of slide bars are mounted on and extend perpendicular to the first member, and on which slide bars the second member is slidably mounted.

80 The jack-means may be screw-jacks with interconnected drive shafts and a handle conveniently located at an endmost screw-jack or with fencing of 2 metres height and over, between two interconnected jacks at a convenient height for the operative.

85 Alternatively, the jack-means may be hydraulic or pneumatic jacks supplied from a common pump.

The first member may be held stationary during use by tethering it to the ground in line with the line of the fencing or by securing it to any conveniently 90 located structure in line with the line of the fencing. It is however advantageous to utilise the fencing posts themselves. Thus, with the fencing first secured in conventional manner to a first fencing or strain post in a line, the first member of the tensioning means 95 can be secured, e.g., by bolts, to the second post, and the fencing secured to the second member, e.g., by hooks, but more preferably by a clamping bar bolted to the second member and trapping the fencing. Operation of the jack-means then pulls the 100 fencing taut between the posts, with even loading over the full height of the fencing, and the fencing is then suitably secured to the second post. The tensioning means are then removed from the fencing and the second post, and the procedure repeated 105 at each post until the full length of fencing required has been erected.

The invention will now be described by way of example only with reference to the accompanying drawings in which:-

110 *Figure 1* is a side elevation of a first embodiment of tensioning means in accordance with the invention;

Figures 2 to 4 are side elevations of the tensioning means of *Figure 1* in various conditions of use with a 115 length of welded wire mesh fencing;

Figure 5 is a side elevation of a second embodiment of the tensioning means in accordance with the invention;

Figure 6 is a side elevation of a third embodiment 120 of the tensioning means in accordance with the invention; and

Figure 7 is a side elevation of the tensioning means of *Figure 6* in use with a length of welded wire mesh fencing.

125 In *Figure 1* tensioning means 1 comprises a first member 2, a second member 3, a pair of screw-jacks 4 extending between the members 2, 3 and with interconnected drive shafts 5 which have a ratchet handle 6 at one end, the members 2, 3 being held 130 parallel by a pair of slide bars 7 mounted on and

extending perpendicular to the first member 2 and on which slide bars 7 the second member 3 is slidably mounted. A bar 8 is provided for clamping fencing to the second member 3 using screws 9.

5 In Figures 2 to 4 a section of welded wire mesh fencing 10 is tethered at one end by a clamping bar 11 to a first fencing post 12. The first member 2 of the tensioning means 1 is then secured by G-clamps 13 to a second fencing post 14 and the fencing at a 10 position adjacent the tensioning means 1 is secured by the clamping bar 8 and screws 9 to the second member 3, the screw jacks 4 are then operated through rotation of the drive shaft 5 by the handle 6 until the required degree of tension is achieved in 15 the fencing 10, the fencing is secured by a further clamping bar 15 to the second fencing post 14 and the clamping bar 8 removed from the second member 3 so that the tensioning means can be removed from the second fencing post 14 and the 20 procedure repeated at a third and subsequent fencing posts (not shown) until the full length of fencing has been erected.

In Figure 5 the tensioning means is provided with three screw jacks 4 to suit fencing of greater height, 25 and with its handle 6 between two of the screw jacks 4.

The embodiment of Figure 6 uses hydraulic or pneumatic jacks 16 supplied from a common pump 17, but initially individually set as shown in Figure 7 30 to different extents to accommodate to appreciably inclined ground with the first member 2 and secured by G-clamps 13 to a vertical fencing post 18, the second member 3 is at the correct angle to the first member 2 to ensure that the fencing 8 is tensioned 35 evenly and in the right direction, i.e. substantially parallel to the ground.

CLAIMS

40 1. Tensioning means for wire mesh fencing comprising a first member adapted to be held stationary in relation to the fencing, an elongate second member lying in the same plane as the first member and to which the fencing is to be removably secured, and a plurality of jack-means extending between the first and second members for effecting movement of the second member relative to the first member.

2. Tensioning means as in Claim 1, wherein the 50 second member extends parallel to the first member, and the jack-means are operable simultaneously and to the same extent, whereby the second member is maintained parallel to the first member during relative movement.

55 3. Tensioning means as in Claim 2, wherein a number of slide bars are mounted on and extend perpendicular to the first member, and on which slide bars the second member is slidably mounted.

4. Tensioning means as in any of Claims 1 to 3, 60 wherein the jack-means are screw-jacks with interconnected drive shafts and a handle conveniently located at an endmost screw-jack or between two interconnected jacks at a convenient height for the operative..

65 5. Tensioning means as in any of Claims 1 to 3,

wherein the jack-means are hydraulic or pneumatic jacks supplied from a common pump.

6. Tensioning means for wire mesh fencing substantially as hereinbefore described with reference to any one of Figures 1, 5 or 6.

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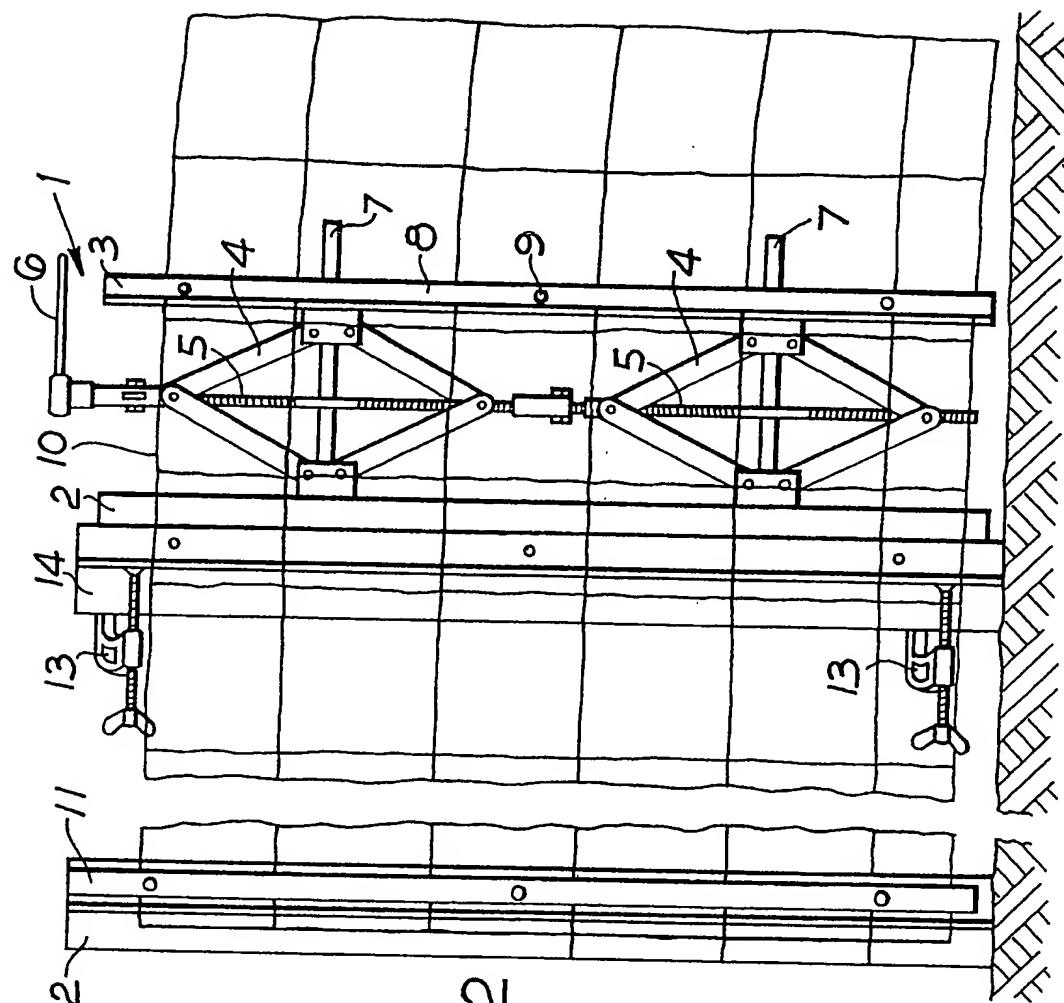


Fig. 2

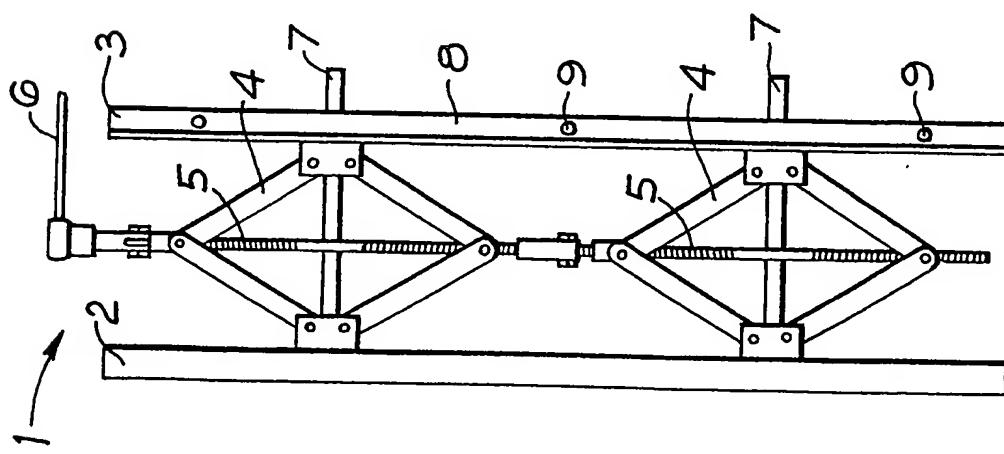


Fig. 1

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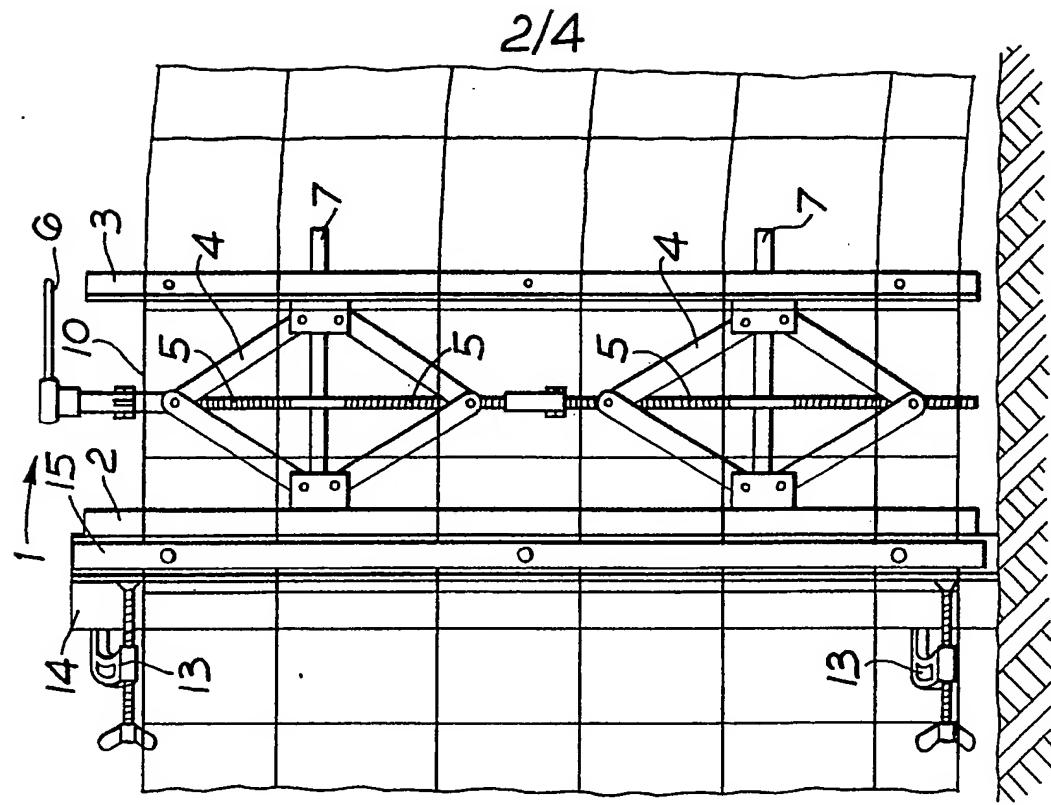


Fig. 4

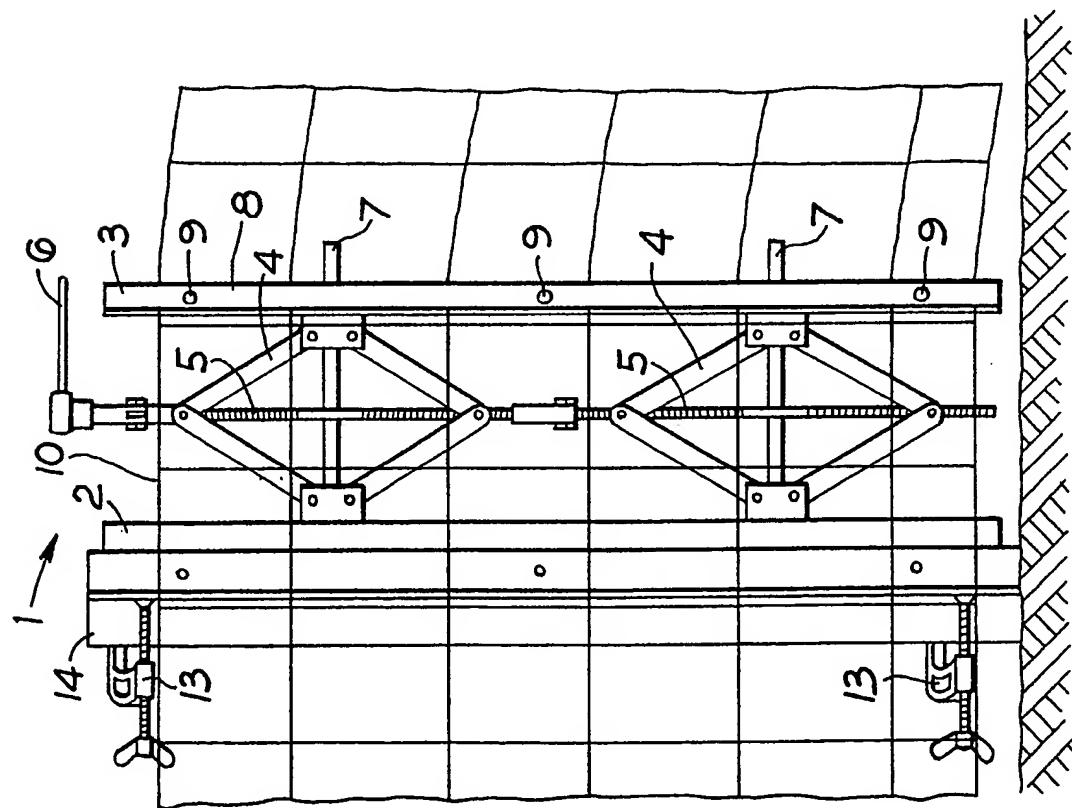


Fig. 3

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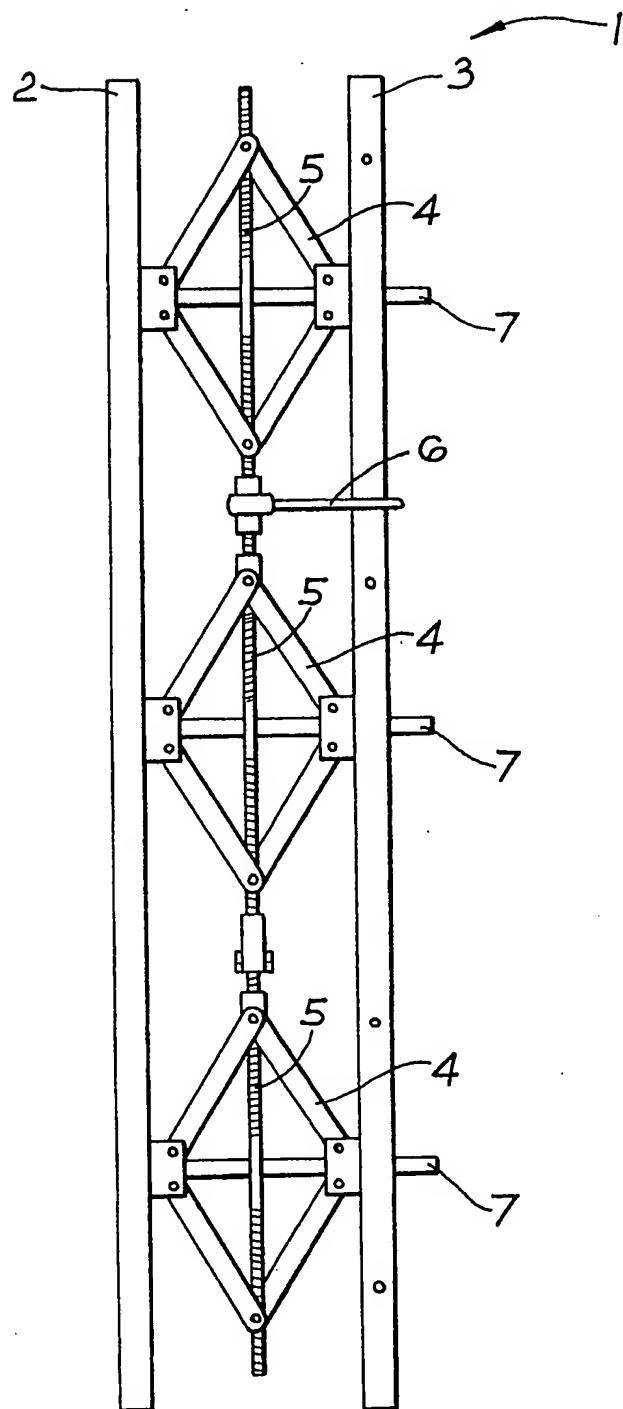


Fig. 5

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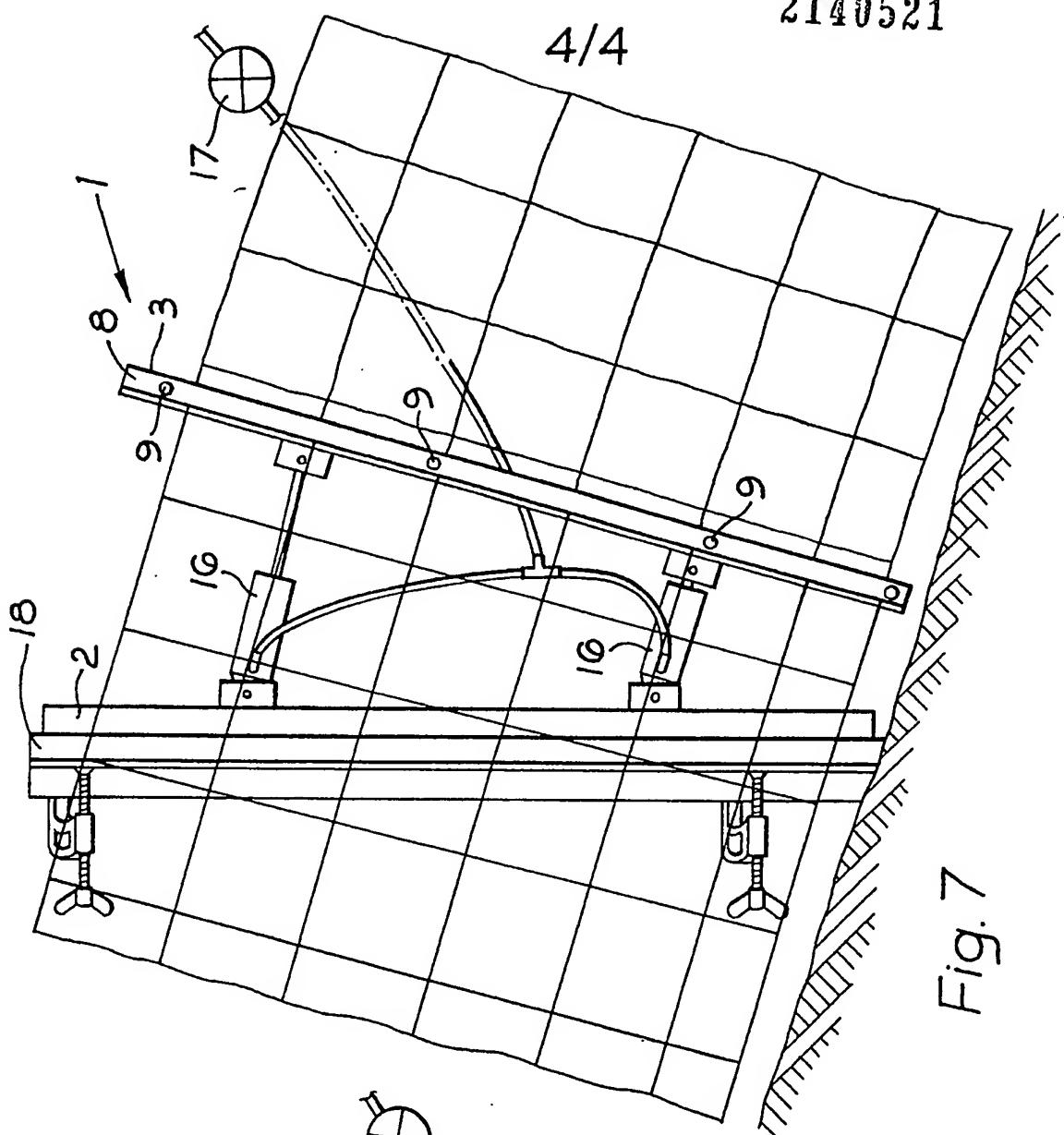


Fig. 7

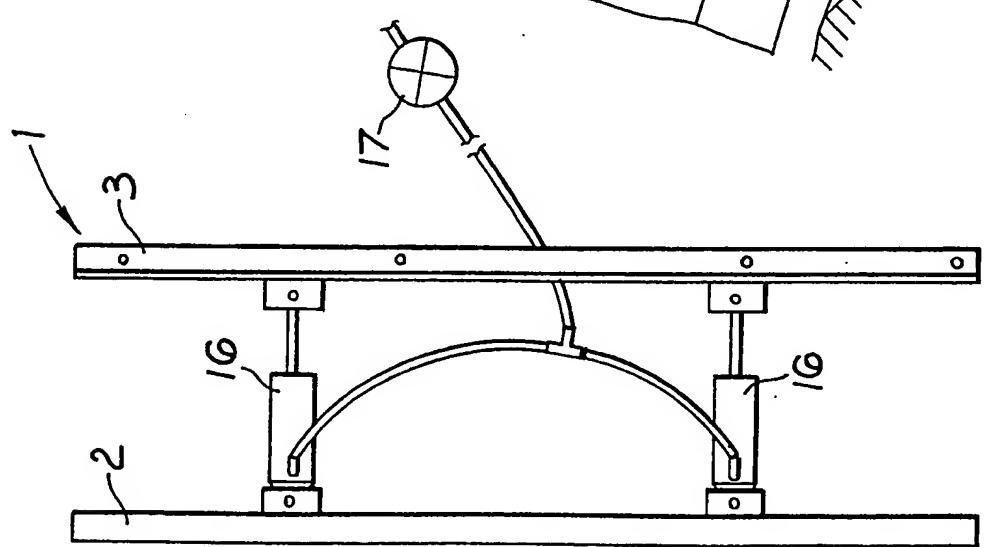


Fig. 6